

# PERACETIC ACID APPLICATION GUIDE

Agriculture  
Food & Beverage  
Industrial  
Oil & Gas  
Pulp & Paper  
Water Treatment



**CHEMICAL CO.**

Providing Creative Solutions

# Product Offerings

## FDA Regulated Products-Food Processing

Hydrite Product	Active Ingredients	Approval Type	Features
HydriShield™ PA 22 HP	22.0% PAA 15.8% H <sub>2</sub> O <sub>2</sub>	FCN No. 1872 FCN No. 2070	FDA approved antimicrobial processing aids, which have approvals in various food intervention applications with high maximum use limits and approved for use as antimicrobial agents in various food contact applications.
HydriShield™ PA 15 HP	15.0% PAA 10.8% H <sub>2</sub> O <sub>2</sub>	FCN No. 1872 FCN No. 2070	
HydriShield™ PA 22 LP	22.0% PAA 5.0% H <sub>2</sub> O <sub>2</sub>	FCN No. 1872 FCN No. 1897 FCN No. 2070	
HydriShield™ PA 15 LP	15.0% PAA 3.41% H <sub>2</sub> O <sub>2</sub>	FCN No. 1872 FCN No. 1897 FCN No. 2070	

APPLICATIONS	HydriShield™ PA 22 HP	HydriShield™ PA 15 HP	HydriShield™ PA 22 LP	HydriShield™ PA 15 LP
	PPM - Max Use Level	PPM - Max Use Level	PPM - Max Use Level	PPM - Max Use Level
Meat	1200	1200	1800	1800
Poultry	2000	2000	2000	2000
Processed and Preformed Meat	466	466	495	495
Processed and Preformed Poultry	230	230	230	230
Brine, Sauce, And Marinade	46	46	50	50
Surface Sauces and Marinade	46	46	50	50
Fish and Seafood	230	230	230	230
Shell Egg	1200	1200	2000	2000
Fruit and Vegetable	600	600	600	600



# FDA Food Processing Applications



Compared to competitors' products, Hydrite's line of HydriShield™ is effective in food contact applications including meat, poultry, processed and pre-formed meat, processed and pre-formed poultry, fish and seafood, fruits and vegetables, shell egg washing, and sauces or marinades for meat and poultry.

## **MEAT APPLICATIONS**

May be used in process water and ice used to spray, wash, rinse, or dip meat carcasses, parts, trim, and organs; and in chiller water or scald water for meat carcasses, parts, trim, and organs.

## **POULTRY APPLICATIONS**

May be used in process water and ice used to spray, wash, rinse, or dip poultry carcasses, parts, trim, and organs; and in chiller water, immersion baths (e.g. less than 40° F), or scald water for poultry carcasses, parts, trim, and organs.

## **PROCESSED AND PREFORMED MEAT APPLICATIONS**

May be used in water, brine, and ice for washing, rinsing, or cooling of processed or pre-formed meat products.

## **PROCESSED AND PREFORMED POULTRY APPLICATIONS**

May be used in water, brine, and ice for washing, rinsing, or cooling of processed and pre-formed poultry products.

## **BRINE, SAUCE, AND MARINADE APPLICATIONS**

May be used in brines, sauces, and marinades applied either on the surface or injected into processed or unprocessed, cooked or uncooked, whole or cut poultry parts pieces.

## **SURFACE SAUCES AND MARINADE APPLICATIONS**

May be used in surface sauces and in marinades applied on processed and pre-formed meat and poultry products.

## **FISH AND SEAFOOD APPLICATIONS**

May be used in process water and ice used to commercially prepare fish and seafood.

## **SHELL EGG APPLICATIONS**

May be used in process water for washing shell eggs.

## **FRUIT AND VEGETABLE APPLICATIONS**

May be used in process water and ice used for washing or chilling fruits and vegetables.

## **NUTS AND SEEDS APPLICATIONS**

May be used as a spray on seeds for sprouting and on edible seeds and nuts.

# Product Offerings

## EPA Registered Products - Food Processing

Hydrite Product	Active Ingredients	Features
Hydroxysan™ Plus	5.9% PAA 27.3% H <sub>2</sub> O <sub>2</sub>	Food contact surface sanitizer on hard, non-porous surfaces, used as a cleaner, deodorizer, disinfectant, antimicrobial agent, fungicide, and fogging agent.
Hydroxysan™ NAS (Nitric Acid Solution)	5.3% PAA 22.5% H <sub>2</sub> O <sub>2</sub>	Rapidly sanitizes at a range of temperatures, use at low concentrations for broad-spectrum kill of gram-positive and gram-negative bacteria. Acid rinse and sanitizer in one convenient product. Ideal for industries where low pH is required to prevent build up due to high alkaline buffers.
Sustain No. 464	6.1% PAA 23.0% H <sub>2</sub> O <sub>2</sub>	No-rinse acid sanitizer used in the dairy, food and beverage processing industry. It contains no phosphates.
Hydroxysan™ 1510	16.0% PAA 10.5% H <sub>2</sub> O <sub>2</sub>	An effective sanitizer exhibiting excellent bactericidal and fungicidal activity against a wide range of microorganisms in cold or warm water.
Clarity	15.0% PAA 10.0% H <sub>2</sub> O <sub>2</sub>	Beverage packaging sterilant. It can be used on food and beverage packaging materials including PEI HDPE and foil, closure systems, and filling equipment in low-acid aseptic, ESL and high-acid aseptic beverage packaging,
Reflex	6.1% PAA 23.0% H <sub>2</sub> O <sub>2</sub>	No-rinse one step acid sanitizer used in the dairy food and beverage processing industry for CIP and COP pipeline, silo, tank and equipment cleaning and sanitizing processes.



# EPA Food Processing Applications

Applications	Hydroxysan Plus	Sustain 464	Reflex	Hydroxysan NAS	Hydroxysan 1510	Clarity
Alkaline Detergent Cleaning Adjunct to Clean Food Processing Equipment	✓				✓	
Animal Premises	✓					
Antimicrobial Rinse of Precleaned or New-Returnable or Non-Returnable Containers	✓			✓	✓	✓
Aseptic Packaging						✓
Beverage Dispensing & Sanitary Filling Equipment Sanitizer	✓					
Casing, Shell Egg Sanitizer	✓				✓	
Combination Cleaning, Descaling & Sanitization for RO & Other Filtration Systems		✓	✓			
Final Bottle Rinse Sanitizer	✓	✓	✓	✓	✓	
Foam Cleaning of Food & Non-Food Contact Surfaces	✓					
Foam Sanitization of previously cleaned, hard, non-porous food contact surfaces					✓	
Fogging in Food Processing Plants	✓				✓	
Food Contact Surface Sanitizer	✓			✓	✓	
Food/Beverage, Wine and Dairy Processing Equipment, Tanks, Vats, Pails, Pipelines & Closed Systems	✓	✓	✓	✓	✓	✓
Meat & Poultry & Vegetable Conveyor Treatment	✓				✓	
Animal Premise Disinfectant/Virucide	✓					
Fruit & Vegetable Water Treatment	✓				✓	
Non-Food Contact Hard Surface Disinfectant	✓					
RO, NF & UF Sanitizer	✓			✓	✓	
Approval in California	✓		✓			

\* Not all the Applications on this page are approved for use in California.

# Product Offerings

## EPA Registered Products - Industrial

Hydrite Product	Active Ingredients	Recommended Use
Hydritreat™ OG 1523	15.0% PAA 23.0% H <sub>2</sub> O <sub>2</sub>	Used as an antimicrobial agent for oilfield and gas-field well operations.
Hydritreat™ WTB 1510	16.0% PAA 10.5% H <sub>2</sub> O <sub>2</sub>	Uses include control of slime forming bacteria and biofouling in recirculating cooling water systems (cooling towers, evaporative condensers, air washers) non-food contact water systems and ornamental or recreation water.
Hydritreat™ WTB 5927	5.9% PAA 27.3% H <sub>2</sub> O <sub>2</sub>	Used in the treatment of process water, cooling water, and wastewater.
Hydritreat™ OG 2205	21.5% PAA 5.0% H <sub>2</sub> O <sub>2</sub>	Used to treat water used in primary or secondary oil and gas recovery systems to control anaerobic sulfide forming bacteria, and aerobic slime forming bacteria.
Hydroxysan™ Plus	5.9% PAA 27.3% H <sub>2</sub> O <sub>2</sub>	Oil and Gas used in the treatment of produced water, cooling water, influent systems, retort water systems, irrigation water systems, and wastewater.

## Specialty PAA Applications

Hydrite Product	Industries	Recommended Use
Hydri-Maize™ 2759	Ethanol, Animal and Protein Rendering, Craft Brewing	To control odor in rendering processes. GRAS approved for use in descaling agent in CIP tanks or as an antimicrobial agent in the fermenter in ethanol processing; as an antimicrobial agent in pressed cake in rendering.
Hydritreat™ SB 5927	Sugar Beets, Seeds and Nuts	Used as an antimicrobial processing aid. GRAS approved (Sugar Beets). Reference FCN No. 2009 (Nuts/Seeds). Antibiotic Free.
Hydritreat™ SB 2216	Sugar Beets, Rendering	Used as an antimicrobial agent in the diffuser for sugar beet processing and pressed cake during meat rendering. Antibiotic Free. GRAS approved.



### BACTERIA PROFILE ANALYSIS

Microbes cost industry billions of dollars per year spent in compromised product. Microbes contaminate and spoil finished products - everything from food to water systems to paper and paint products.

We're able to quickly detect and quantitate specific microorganisms. Quick results allowing our customers to act immediately.

# EPA Industrial Applications

<b>Applications</b>	Hydroxysan Plus	Hydritreat OG 1523	Hydritreat WTB 1510	Hydritreat WTB 5927	Hydritreat OG 2205
Agricultural Water & Irrigation Systems	✓		✓		
Biofouling Control in Pulp & Paper Milling Systems	✓	✓	✓	✓	✓
Control of Bacteria & Fungi in Dispersed Pigments	✓	✓	✓	✓	
Control of Slime Forming Bacteria in Recirculating & Cooling Water Systems	✓	✓	✓	✓	✓
Drilling Muds, Fracturing Fluids, Well Squeezed Fluids	✓	✓	✓	✓	
For Disinfection of Sewage & Wastewater Effluents in Treatment Plants	✓			✓	
For Non-Public Health Microbial Control in Sewage & Wastewater Effluent Treatment Plants			✓		✓
Flooding, Injection, & Produced Water for Water Flooding Operations	✓	✓	✓	✓	
Oil Field, Gas Productions & Transmission Pipeline & Systems	✓	✓	✓	✓	
Oil, Gas, & Secondary Oil Recovery Systems, Drilling Muds & Packing Fluid					✓
Pipeline & Tank Maintenance	✓	✓	✓	✓	
Sanitization of RO & UF Membranes	✓	✓	✓		✓
Sanitization of RO, NF, & UF Membranes	✓		✓		✓
Sanitization of RO & UF Piping Systems	✓	✓	✓		✓
Sanitization of RO, NF, & UF Piping Systems	✓		✓		✓



# Providing Creative Solutions

## BENEFITS OF USING PAA

Effective against broad spectrum of microorganisms



No toxic byproducts



Controls odors



Sustainable and Safe decomposition



Easy to use



Operates over a wide temperature and pH range



PAA breaks down safely to environmentally friendly residues (acetic acid and hydrogen peroxide) with no toxic byproducts. Sustainable and safe decomposition.

Peracetic acid combats many forms of bacteria due to its high oxidizing potential. It is highly effective against a broad range of microorganisms making it the ideal antimicrobial agent for applications across various industries.

- Water Treatment
- Agriculture
- Fruit and Vegetable
- Cooling Towers
- Food Processing
- Pulp & Paper
- Dairy
- Oil & Gas
- Food & Beverage
- Sugar Beet
- Aseptic Packaging
- Craft Brew
- Animal Premise
- Rendering
- Meat & Poultry
- Seeds & Nuts

## Contact us today!

### For more information:

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Product safety information, storage, and handling precautions are contained on the product label and Safety Data Sheet (SDS). See product label and Safety Data Sheet (SDS) to determine the proper storage, handling procedures, and materials of construction when utilizing Hydrite's peracetic acid (PAA) based products.

READ AND UNDERSTAND LABEL AND SAFETY DATA SHEET BEFORE PRODUCT USE.